From: Andrew Wildenberg
To: Microsoft ATR
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Subject: Microsoft Settlement

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CC: Andrew Wildenberg

To the Department of Justice, Antitrust division:

I would like to express my strong objection the Revised Proposed Final
Judgment (RPFJ) in US v. Microsoft. It is a settlement riddled with
loopholes and ambiguities. It offers nothing that will 'unfetter a
market', 'terminate the illegal monopoly', or 'ensure that there
remain no practices likely to result in monopolization in the future'
but will instead afford Microsoft new, court-sanctioned, ways to
extend its monopoly and discourage competition and innovation in the
industry.

I am an instructor of Computer Science at the State University of New
York at Stony Brook. I also have extensive experience as a software
developer in industry and a private contractor. I regularly use
Microsoft products professionally and privately. My main operating
system is Microsoft Windows 2000, although I regularly use Mac OS,
Solaris, FreeBSD, HP-UX and Linux in my work.

One area of particular concern is the section of definitions in the
RPFJ that relate to APIs and Middleware. The definition of API is
given as follows:
  "Application Programming Interfaces (APIs)" means the interfaces,
  including any associated callback interfaces, that Microsoft
  Middleware running on a Windows Operating System Product uses to
  call upon that Windows Operating System Product in order to obtain
  any services from that Windows Operating System Product.

The important point is that this definition specifies only a small
portion of the interface as being relevant to the RPFJ. Specifically,
interfaces called internally by the operating system itself are
exempt, as are interfaces called by other Microsoft software such as
the Office suite.

In the past Microsoft has regularly changed common definitions within
the computer science literature to suit the whims of its litigation.
Most recently it argued that Internet Explorer was in fact an
inseparable part of the core operating system. While that particular
program has been addressed by this particular decree's definition of
middleware, there is no protection that future applications programs
won't be relabeled as either 'core OS' or 'applications'. In either
case, APIs used by these new components can lawfully be withheld from
3rd party developers.

Middleware and Microsoft Middleware is defined in several parts, but
important ones include:
  part K1: "the functionality provided by Internet Explorer,
  Microsoft's Java Virtual Machine, Windows Media Player, Windows
  Messenger, Outlook Express and their successors in a Windows
  Operating System Product"

While it is good to name specific products as middleware, for the most
part, the ones chosen are all technology that Microsoft has already
supplanted: Outlook Express will soon be replaced by Outlook, Windows
Messenger by .NET services, and the Microsoft JVM by C#. Because
those three products already exist at this time, it can be argued that
the decree has specifically excluded them from its definition.

The phrase 'and their successors' is a troublesome one, given
Microsoft culture and programming practices. Microsoft is known for
leading the industry in code re-use. A code analysis comparing
Windows 2000 software to its middleware would show a large portion of
it had been borrowed from the core OS. In such a culture, source code
can not be the basis for determining the lineage of software: either
everything will be related (too generous) or nothing will be related
(too restrictive). If, on the other hand, 'functionality' is the
basis for lineage, then the picture is more complex: Is Windows 2000
a successor to Windows 3.1 or a completely new and unrelated product?

If new, when did the new product become new? Under what definition
will the innovation be measured and what threshold will distinguish
'new' from 'extended'?

> part J: Software code described as part of, and distributed
> separately to update, a Microsoft Middleware Product shall not be
> deemed Microsoft Middleware unless identified as a new major version
> of that   Microsoft Middleware Product. A major version shall be
> identified by a whole number or by a number with just a single digit
> to the right of the decimal point.

This claim allows Microsoft to arbitrarily change APIs at any time,
and not disclose them to developers. The computer industry is
notorious for manipulating release numbers, and for those numbers not
adequately measuring when a release is 'major' or not. Using this
ability to change APIs, it would be possible for Microsoft to sabotage
competing products, as it did during the Dr-DOS case, by manipulating
the APIs in a way designed to break the competing products. Since a
competing product must be able to run on all versions of Microsoft
middleware, such a change in API would mean a huge advantage to
Microsoft's in-house development teams.

Furthermore, restrictions on which APIs released provide other methods
for Microsoft to impede 3rd party development. Specifically, by the
RPFJ, Microsoft can not be required to
> document, disclose or license to third parties: (a) portions of APIs
> or Documentation or portions or layers of Communications Protocols
> the disclosure of which would compromise the security of a
> particular installation or group of installations of anti-piracy,
> anti-virus, software licensing, digital rights management,
> encryption or authentication systems, including without limitation,
> keys, authorization tokens or enforcement criteria; ...

> Prevent Microsoft from conditioning any license of any API,
> Documentation or Communications Protocol related to anti-piracy
> systems, anti-virus technologies, license enforcement mechanisms,
> authentication/authorization security, or third party intellectual
> property protection mechanisms of any Microsoft product to any
> person or entity on the requirement that the licensee: (a) has no
> history of software counterfeiting or piracy or willful violation of
> intellectual property rights, (b) has a reasonable business need for
> the API, Documentation or Communications Protocol for a planned or
> shipping product, (c) meets reasonable, objective standards
> established by Microsoft for certifying the authenticity and
> viability of its business, (d) agrees to submit, at its own expense,
> any computer program using such APIs, Documentation or Communication
> Protocols to third-party verification, approved by Microsoft, to
> test for and ensure verification and compliance with Microsoft
> specifications for use of the API or interface, which specifications
> shall be related to proper operation and integrity of the systems
> and mechanisms identified in this paragraph.

Microsoft has begun a push to become the most secure operating system
in the world. Indeed Bill Gates has said that security should be the
company's top priority and that it should be embedded at the most
basic levels of the operating system. If Microsoft follows through on
this, it could reasonably argue that it could not release the majority
of APIs because they were related to security.

In past statements Microsoft has emphasized future work integrating
digital rights management into its OS. A reasonable implementation of
this would be to have the OS automatically check for digital rights
every time that a file is opened. Again, by the same logic, it could
decline to release the API for opening a file, arguably one of the
most basic APIs in an operating system.

Furthermore, the restrictions on potential licensees require a large

amount of disclosure to Microsoft, including the disclosure of company
confidential information to a designated agent of Microsoft.
Microsoft is allowed to set arbitrary standards for using the
protocols without regard to what is reasonable. Microsoft is allowed
to set arbitrary standards for what constitutes a business. In the
non-Microsoft Middleware Product definition, one of the standards is
that a million copies of the product were shipped in the US in the
previous year (i.e. products less than a year old or those primarily
distributed outside the US do not quality). Similar restrictions for
a 'reasonable business' could include revenue or distribution figures
that would, as an example, exclude a large portion of the free
software products.

In summary, I feel there are serious defects in the Revised Proposed
Final Judgment. I have outlined my objections in three specific
areas: the definition of "API", the definitions of the various kinds
of "Middleware", and the various exemptions and requirements related
to API disclosure. While I feel there are other problems with the
decree, these are the areas I have the most expertise in commenting
on, and so I have chosen brevity over completeness. If this RPFJ is
accepted, it will strengthen Microsoft's monopoly by providing
court-sanctioned methods to leverage its current market dominance in
operating systems to new and emerging markets.

Sincerely,

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